THE PLOUGH BOY.

AND JOURNAL OF THE BOARD OF AGRICULTURE.

BY SOLOMON SOUTHWICK.

"He that observeth the wind shall not sow; and he that regardeth the clouds shall not reap."—BUT—"He that tilleth his land shall have plenty of bread."—*Ecclesiastes.*

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ORIGINAL.

TO THE EDITOR OF THE PLOUGH BOY.

SIR,

The beautiful little poem, "From the Castle of the Air to the Little Corner of the World," from the pen of THOMAS PAINE, having been greatly admired, I send you another copy of his poetical effusions, which I presume will not be less acceptable to all who correctly appreciate natural genius and talent.

It is, perhaps, not generally known to your readers, that shortly after Mr. Paine's first visit to this country, in the beginning of 1775, he was employed by Mr. Aitkin, bookseller, to edit the Pennsylvania Magazine. The following extract from the close of the introduction to that work, gave birth, in Mr. Paine's mind, to the poem now sent you:—"Thus encompassed with difficulties "this first number of the Pennsylvanian Magazine "entreats a favorable reception; of which we "shall only say, that like the early *snow-drop* it "comes forth in a barren season, and contents it-"self with foretelling the reader that choicer "flowers are preparing to appear."

In a subsequent number of the same Magazine, we find the following:

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THE SNOW-DROP AND THE CRITIC.

A DIALOGUE.

To the Editor of the Pennsylvanian Magazine.

SIR,

I have given your very modest "Snow-Drop," what I think Shakespeare calls "a local habitation and and a name;" that is, I have made a poet of him, and have sent him to take possession of a page in your next Magazine: Here he comes, disputing with a critic, about the propriety of a prologue.

Enter CRITIC, *and* SNOW-DROP.

CRITIC.

Prologues to Magazines! the man is mad;
No Magazine a prologue ever had;
But let us hear what new and mighty things,
Your wonder-working magic fancy brings.

SNOW DROP.

Bit by the muse in an unlucky hour,
I've left myself at home, and turn'd a flower;
And, thus disguised, came forth to tell my tale,
A plain white SNOW DROP gather'd from the vale;
I come to sing that summer is at hand,
The summer time of wit you'll understand;
And that this garden of our Magazine,
Will soon exhibit such a pleasing scene,
That even critics shall admire the show,
If their good grace will give us time to grow:
Beneath the surface of the parent earth,
We've various seeds just struggling into birth;
Plants, fruits and flowers, and all the smiling race
That can the orchard or the garden grace;
Our numbers, sir, so vast and endless are,
That when in full complexion we appear,
Each eye, each hand, shall pluck what suits its taste,
And every palate shall enjoy a feast;
The ROSE and LILY shall address the fair,
And whisper sweetly out, "My dears, take care;"
With sterling worth the PLANT OF SENSE shall rise,
And teach the curious to philosophize;
The keen-eyed wit shall claim the SCENTED BRIAR,
And sober cits the SOLID GRAIN admire;
While generous juices, sparkling from the VINE,
Shall warm the audience till they cry—divine!
And when the scenes of one gay month are o'er
Shall clap their hands, and shout—encore! encore!

CRITIC.

All this is mighty fine! but prithee when
The *frost* returns, how fight ye then your men?

SNOW-DROP.

I'll tell you, Sir! we'll garnish out the scenes,
With stately rows of hardy EVERGREENS,
Trees that will bear the frost and deck their tops
With everlasting flowers, like diamond drops,
We'll draw, and paint, and carve, with so much skill,
That wondering wits shall cry—diviner still!

CRITIC.

Better, and better, yet! but, now, suppose
Some critic wight in mighty verse, or prose,
Shall draw his grey goose weapon, dip'd in gall,
And mow ye down *Plants*, *Flowers*, *Trees* and *All*.

SNOW DROP.

Why then, we'll die like *Flowers of sweet perfume*,
And yield a fragrance, even in the *Tomb!*

Mr. Paine gave the above to the world in the 48th year of his age. Great men are said to give indications, at an early period of life, of their future greatness. Though I have little faith in this, some of your readers may, probably, be *amused* on perusing the following juvenile production of our author, which he wrote when only *eight* years of age.

Epitaph on a Crow, buried in the Garden.

Here lies the body of John Crow,
Who once was high, but now is low;
Ye brother Crows take warning all,
For as ye rise, so must you fall.

Besides the foregoing, Mr. Paine was the author of the following songs: "Hail great republic of the world;" "To Columbia, who gladly reclined at her ease;" "On the death of General Wolfe;" and "Liberty Tree;" all written to animate the people of this country against despotism. He also wrote "Farmer Short's dog, Porter;" "Verses to a friend after a long conversation on War;" "What is Love? "Korah

Dathan, and Abiram;" with a few other minor pieces. Should you think what I now send deserving a place in your journal, I may, possibly, transmit you some of the others. G. H.

On Chess.

FOR THE PLOUGH BOY.

Mr. SOUTHWICK,

I am sincerely anxious to draw the attention of farmers and scientific men to a closer and more minute investigation of the subjects of Chess and smut in our wheat. In my last communication I have ventured to express my doubts whether chess is really *a particular species of Germina*, or smut really *a parasitical plant*. In this opinion I am aware that I differ from many scientific men of the first botanical and Agricultural knowledge; and my friend Dr. Coventry seems to think that if my opinion should obtain, it would prove injurious, in as much as it would discourage the efforts of our farmers in procuring clean seed, &c. This would be an ungrateful task indeed, and I assure you *Agricola* has no wish to discourage any of those salutary efforts or precautions on which the success of our agriculture so much depends. But truth I apprehend cannot be really injurious in Agriculture any more than in physic: Quackery may fear the light, and avoid investigation. But Doctor Coventry will in an instant perceive that to diligent enquiry and free investigation every science owes its present improvement, and may reasonably hope to derive yet greater improvements by these obvious means.

Is it not possible that those species of wheat now generally cultivated in this country, are not adapted to our climate? May not a species be found if diligently sought for, which, being better adapted to our soil and climate, will prove less liable to injury from the fly, from chess, from smut, and the accidents incident to those species now in use? For my own part I am fully persuaded that no human care or prudence can prevent smut and chess from *occasionally infesting* the crops, and destroying the hopes of the farmer in his crop of wheat, so long as he continues to sow the species now in use in our country. I am, however, very far from despairing of the possibility of procuring a species better adapted to our climate and less liable to these defects.—But we are not apt to call a physician until we know we are sick; neither will we feel the necessity of changing our seed until we know that we want a change, and can derive an important advantage from it. My wish is therefore to draw the attention of men of science, of men who have leisure, talent, and opportunity to *question nature by experiment* on this important subject. If we can discover the nature and true causes of the disorder, *a remedy* ought not to be despaired of.

Unfortunately too many of our scientific men, who have written on the subject of agriculture, have not been practical farmers, nor had the benefit of long experience which alone can enable them to decide with safety. Hitherto science and experience have seldom been brought together to explore these interesting subjects. Yet much light has been thrown upon them, and many all important practical results have been derived from the labours of the botanist, the chymist, and the theorist. The disorders of the vegetable kingdom, their causes and remedies, offer a wide and almost unexplored field for enquiry; a field well worthy of the labour and talents of scientific and enlightened men.

From my limited and imperfect experience I have long despaired of any certain and effectual remedy against smut and chess, by any of the means which have so long and so frequently been recommended to the attention of the farmers; but have considered most of those expedients and precautions to be useful and laudable. It is obviously important to select the best, healthiest, heaviest, and cleanest seed of every kind, to set the crop; and many of the steeps and mixtures recommended will certainly do no harm, and may do good. Surely no rational man will doubt for a moment that good sound seed is better than that which is infected, defective, weak, or sickly. But experience has proved for many years, that after all possible care in selecting the seed, and after using all the steeps and mixtures so much relied upon, the farmer has been too often disappointed; he has reaped chess and smut instead of wheat. From these and many other circumstances, too numerous to repeat, I have been for some years past inclined to believe that the evil might arise from our present varieties of wheat not being adapted to the climate, and that new varieties might be sought after and introduced perhaps to great advantage. I have witnessed the importance of adapting particular seeds to particular soils and climates. I will mention but one. The sea island, or black seed cotton plant, when cultivated on the sea islands, or within the immediate influence of the sea air, does not degenerate, but continues to produce the fine long silky cotton so highly valued in Europe: but when this seed is removed and planted even a few miles from such a situation, it degenerates rapidly into what is called the green seed, or upland cotton; is less certain in its product; liable to more accidents; yields less, and is no way superior, after the third year, in quality to the ordinary green seed cotton. So sensible are the planters of the south of this rapid deterioration in the seed, that they rarely set their crops two years from the same seed, but procure fresh seed yearly from the sea islands. It is evident that this important plant is entirely out of its element when removed from the immediate influence of sea air; It sickens, deteriorates, and runs out in three or four years, even at the distance of ten or twelve miles from the sea. One more instance: In Georgia and South Carolina the common drum head and other large varieties of cabbage, although they will grow luxuriantly, cannot be made to form heads; but the early york and early sugar loaf cabbages will succeed to great perfection.

These two cases, I think, are demonstrative of the great importance of adapting particular varieties to the particular climates and soils for which nature formed them. Our varieties of wheat are very numerous, and in fact have become so blended and mixed as to scarcely leave us any distinct unmixed variety at this time.

I received some days since, a sample of wheat said to have come from Spain; and it is recommended as not being liable to smut, or injury from the fly. Should this variety succeed in our climate, and possess those qualities, it will be important to keep it distinct. But I fear our climate may strip it of its fame; it may, like the cotton plant, grow sickly and degenerate, from the influence of climate. It is devoutly to be wished that it may succeed, and answer the character given it, and is certainly worthy a fair trial. Should it fail in this climate, I should be still more confirmed in my opinion, that the disorders so much complained of are owing to the influence of climate, and that new varieties should still be sought after.

AGRICOLA.

Middlesex, May 27, 1820.

On Chess.

IN REPLY TO AGRICOLA.

FOR THE PLOUGH BOY.

Mr. EDITOR,

My attention has been casually attracted to a discussion in your paper of the question, whether *wheat will produce chess?* and as the insentive to neat and careful cultivation much depends upon the nature of its decision: I take the liberty of offering you the following remarks upon it.

The plant called *chess* by farmers, differs as materially from wheat in all its characters, as a sheep differs from an ox. This plant is well known by scientific men as an entirely separate plant, having no connection with wheat, rye, oats, clover, timothy or any other grass, farther than that they are sometimes found growing together in the same field. It is distinguished as the *Bromus secalinus* or rye broom grass of Linnæus, and is faithfully described and figured in Sowerby's botany. It belongs to the same class and order of vegetables as wheat, and the other cerealia, but is of a different genus and species. The obvious features by which it will strike the casual observer as distinguishing it from wheat, are, that its flowers are borne in a pannicle or on numerous branches; it has a solid, slightly furrowed or channelled, many jointed stalk; the upper side of its leaf is downy or hairy: By inspection of the wheat plant that will be found to possess none of these characters. The seed of chess also is as different from wheat as rye, oats or barley.

The deductions of Botanists are usually made from close and accurate observation of themselves and others, and from the immutable and uniform laws of nature; laws which control and direct all creation, and without which character of immutability, our world would soon *degenerate* to a state of chaos. It is therefore a fundamental rule in science, that when a phenomenon occurs, which apparently impugns the designs, harmonies, and perfections of nature, that it should be investigated with the strictest attention and most rigid scrutiny, until the explanation be made to conform to the established order of things.

Intelligent men will not be satisfied with the cursory and birds-eye view of the passing tra-

veller, or the hasty and impassioned observation of disappointed ignorance, which endeavours to conceal its own neglect, under the mask of nature's transformations; and science before she will record the reports of men, must be satisfied, that they are the results of the patient and laborious examination of intelligence; the cool observations of good sense and discretion, made from day to day, and from year to year. It is by such investigations that the harmonies and consistencies of nature are developed, and there is not recorded a single instance of an anomaly or repugnance in her works, such as is endeavoured to be established in the transformation of wheat into chess.

Another rule, equally important but as often neglected, is, that when a phenomenon can be explained, upon natural and consistent principles, no others must be sought after or admitted.

Tested by these rules it is evident that the remarks of *Agricola*, inserted in your paper of 24 June, upon the subject of chess, are unworthy of serious attention; because his examinations have not been pursued with the eye of critical intelligence, nor are his deductions conformable to the uniform plans of nature; and I will further observe, trat it is much to be regretted, that writers so superficial in their examinations, and incautious in drawing conclusions, should publish to the world opinions and statements, so much calculated to mislead the unwary, and to embarrass and discourage judicious exertions.

That writer observes, that he has repeatedly sown chess, *but never could persuade a grain of it to grow*: Now it is notorious, that chess has repeatedly and repeatedly been sown by others with a view to test the fact, and it has seldom, if ever, failed to grow and produce seed after its own peculiar kind; I leave it to the judicious to decide, if such experiments are not worth the assertions of a myriad of superficial observers.

The only fact relied upon by its advocates to prove, that wheat will produce chess is, that when the growing wheat is injured and the crop small, there is frequently found much chess among it; and as the farmer is unable to conceive from whence the seed was derived, he infers that it is the product of the wheat. By this mode of setting the question, it should also be inferred, that the mushrooms, daisies, white weed, wild turnips, and other foreign vegetables, often found among it, originate from the same degenerate wheat; and by parity of reasoning, maggots which feed upon dead horses, dogs, cats and rats, are simply these animals in a degenerate form, because we cannot account, in what manner the nit of the worm was deposited upon their corrupting flesh.

Among the many obvious features of the world we dwell in, none is more striking than this, that man is continually advancing in a state of progressive improvement: new views of nature are constantly unfolding to him new truths, and the errors of his ancestors are daily exploded. Men now require, that their reason, rather than their feelings, should be convinced, and no assertion, however plausible or authoritative, is received as conclusive, except it be susceptible of the clearest demonstration. Hence the preposterous idea of ghosts and sprites, fairies and witches, the wretched offspring of an age of ignorance and superstition, is now almost wholly exploded; and yet their existence and malignant agencies, were once as firmly credited, as the equally absurd and incredible opinion of *Agricola*, that wheat will produce chess.

It is now high time that the people of this state should be sensible of their own faults, and inefficient exertions, and instead of attributing to physical causes, the natural results of their own carelessness, and indolence, they should seriously set about correcting their errors.

If the soil fail to produce wheat, the cause is found in the uncongenial nature of the seasons, which have for some years past been miraculously changing, instead of that very obvious one, that the land is impoverished by too free and frequent drafts upon its bounty, without making it a single return. If the crop be infected with smut, it is attributed to the occasional visitation of some infectious disease, like the plague, or yellow fever, instead of that very rational explanation, that it is a seed, sown with the seed wheat, and must, therefore, be reaped with the grain. If the farmer confidently expect a crop of wheat, and is mortified, and disappointed at finding it chess, the answer is also ready, that some foul and ugly Hecate, (for what else can interrupt the order of nature,) has bewitched his seed, and by the magic influence of her divining rod, has transformed it into chess.

It is the nature of weeds, to spring up and grow, where wholesome vegetables have perished, and the only mode to subdue their rank luxuriance, is by repeated tilling.

Injurious plants, frequently present themselves under circumstances quite unaccountable, and the most observing and intelligent men are often much embarrassed to discover the causes of their appearance; yet, except in the solitary instance of chess, their existence has never been attributed to the degeneracy of other vegetables.

The mode by which the seeds of noxious vegetables, are most usually disseminated, is by the manure; such seeds are generally very indigestible, and difficult of corruption: Of this nature is chess. This plant usually arrives at maturity at the same period with the meadow grass and grain, and being harvested with them, is fed out to the cattle with hay and straw. The seeds of chess are either rejected by the animal, because they are unpalatable, and therefore remain with the manure, or if eaten will often pass it without decomposition; some of the chess, is no doubt threshed out with the wheat, but it separates with difficulty from its stalk, and therefore much remains attached to it after threshing. Some inconsiderate farmers, will also clean their wheat near their barn yards, and then throw the rejected foul seeds among their manure, under the false idea that they will soon corrupt; the fact is that the seeds of noxious vegetables are the most difficult to destroy by corruption of any, and they will frequently remain unchanged for years.

Chess is no doubt often sown with the seed, but when the chess crop is large it almost invariably proceeds from the manure. In several instances I have successfully traced to this source the unexpected appearance of large quantities of chess, and have satisfied the mind of the farmer (who had before believed it in the nature of a miracle) that it originated from the manure.

Mischievous vegetables also, like insects in the animal kingdom, are exceedingly prolific; I have estimated the ratio of encrease of chess, and am satisfied that a single grain of it, is capable of producing the first year four thousand grains, and the subsequent year sixteen millions of grains.

It is a difficult thing to prove a negative, and with the ignorant and superstitious, who are ever prone to refer effects to supernatural agencies, the negation of a thousand enlightened philosophers, is often but a feather's value when weighed against the affirmation of a witless pretender.

If it were asserted that a whale was the offspring of an elephant, or that a forest of maples, elms and oaks, had been produced from the seeds of degenerate white clover, all the world would discredit the story; but in what manner can it be disproved, but by reference to that established and unchangeable decree of nature, that animals and vegetables shall produce after their own kind: so with wheat and chess, altho' these vegetables have produced from age to age, after the order of nature, plants of their own kind, yet do we hear it seriously asserted that they will produce each other, or rather that wheat will produce chess: there is no way to refute such monstrous absurdities but by refering them to principles which the enlightened intellect of man has now received, as axioms in the system of nature.

It is time to abandon such crude and preposterous notions—let us cease to drag them forth from those days of darkness and ignorance in which they were brought forth and nursed, except for reproof and instruction; or to smile at the follies of those who preceded us. Let us now seek for the origin of our misfortunes in our own folly, neglect and misconception of things, rather than libel the beauty and wisdom of nature by imputing them to her imperfections; let us no longer endeavour to conceal our errors under false tho' convenient garbs, but meet them boldly face to face, and actively set about connecting them, and we shall soon find that the kind and rounteous soil of our own and some of our sister states, which has almost been made a desert, by a spirit of rapacity and injudicious cultivation, will soon again blossom as the rose.

Let the agriculturist resuscitate his famished land with manure—let him attend to his crops while growing, and pull up or cut down the chess plant before it reaches maturity, and by excluding it from his seed, he will soon find no vestage of it upon his farm; let him also wash his seed and cleanse it of *smut* and he will soon cease to complain of vegetable infection.

I had intended to add some remarks upon the notice and origin of *smut*, but the length of this article has already exceeded my intention, and I fear exhausted your patience; at another time I may furnish you with a paragraph upon that subject.

QUERCUS.

New-York, 28th June, 1820.

SELECTIONS.

Agricultural Chemistry.

No. XLIV.

BY HUMPHREY DAVY.

Phosphate of lime.

This is a combination of phosphoric acid and lime, one proportion of each. It is a compound insoluble in pure water, but soluble in water
[300] containing any acid matter. It forms the greatest part of calcined bones. It exists in most excrementitious substances, and is found both in the straw and grain of wheat, barley, oats and rye, and likewise in beans, peas, and tares.—It exists in some places in these islands native; but only in very small quantities. Phosphate of lime is generally conveyed to the land in the composition of other manure; and it is probably necessary to corn crops and other white crops.

Bone ashes ground to powder will probably be found useful on arable lands containing much vegetable matter; and may perhaps enable soft peats to produce wheat; but the powdered bone in an uncalcined state is much to be preferred in all cases when it can be procured.

The saline compounds of magnesia.

These will require very little discussion as to their uses as manures.—The most important relations of this subject to agriculture have been considered in the former part of this Lecture, when the application of the magnesian limestone was examined. In combination with sulphuric acid magnesia forms a soluble salt. This substance, it is stated by some enquirers, has been found of use as a manure; but it is not found in nature in sufficient abundance, nor is it capable of being made artificially sufficiently cheap to be of useful application in the common course of husbandry.

Wood ashes.

They consist principally of the vegetable alkali united to carbonic acid; and as this alkali is found in almost all plants, it is not difficult to conceive that it may form an essential part of their organs.
[301] The general tendency of the alkalies is to give solubility to vegetable matters; and in this way they may render carbonaceous and other substances capable of being taken up by the tubes in the radicle fibres of plants. The vegetable alkali likewise has a strong attraction for water, and even in small quantities may tend to give a due degree of moisture to the soil, or to other manures; though this operation from the small quanties used, or existing in the soil, can be only of a secondary kind.

Of Soda.

It is found in the ashes of sea-weed, and may be procured by certain chemical agencies from *common salt.* Common salt consists of the metal named sodium, combined with chlorine; and pure soda consists of the same metal united to oxygene. When water is present which can afford oxygene to the sodium, soda may be obtained in several modes from salt.

Of common salt.

The same reasoning will apply to the operation of the pure mineral alkali, or the carbonated alkali, as to that of the vegetable alkali; and when common salt acts as a manure, it is probably by entering into the composition of the plant in the same manner as gypsum, phosphate of lime, and the alkalies. Sir John Pringle has stated, that salt in small quantities assists the decomposition of animal vegetable matter. This circumstance may render it useful in certain soils. Common salt likewise is offensive to insects. That in small quantities it is sometimes a useful manure, I believe is fully proved; and it is probable that its efficacy depends upon many combined causes.

[302] Some persons have argued against the employment of salt; because when used in large quantities, it either does no good, or renders the ground sterile; but this is a very unfair mode of reasoning. That salt in large quantities rendered land barren, was known long before any records of agricultural science existed. We read in the Scriptures, that Abimelech took the city of Shechem, "and beat down the city, and sowed it with salt;" that the soil might be for ever unfruitful. Virgil reprobates a salt soil; and Pliny, though he recommends giving salt to cattle, yet affirms, that when strewed over land it renders it barren. But these are not arguments against a proper application of it. Refuse salt in Cornwall, which, however, likewise contains some of the oil and exuviæ of fish, has long been known as an admirable manure. And the Cheshire farmers contend for the benefit of the peculiar produce of their country.

It is not unlikely that the same causes influence the effects of salt, as those which act in modifying the operation of gypsum. Most lands in this Island, particularly those near the sea, probably contain a sufficient quantity of salt for all the purposes of vegetation; and in such cases the supply of it to the soil will not only be useless, but may be injurious. In great storms the spray of the sea has been carried more than 50 miles from the shore; so that from this source salt must be often supplied to the soil. I have found salt in all the sandstone rocks that I have examined, and it must exist in the soil derived from these rocks. It is a constituent likewise of almost every kind of animal and vegetable manure.

Of nitre.

[303] Besides these compounds of the alkaline earths and alkalies, many others have been recommended for the purpose of increasing vegetation; such are *nitre*, or the nitrous acid combined with potassa. Sir Kenelm Digby states, that he made barley grow very luxuriantly by watering it with a very weak solution of nitre; but he is too speculative a writer to awaken confidence in his results. This substance consists of one proportion of azote, six of oxygene, and one of potassium; and it is not unlikely that it may furnish azote to form albumen or gluten in those plants that contain them; but the nitrous salts are too valuable for other purposes to be used as manures.

Of sulphate of potash.

Dr. Home states, that *sulphate of potassa*, which as I just now mentioned, is found in the ashes of some peats, is a useful manure. But Mr. Naismith* questions his results; and quotes experiments hostile to his opinion, and, as he conceives, unfavourable to the efficacy of any species of saline manure.

* Elements of Agriculture, p. 78.

Miscellaneous remarks.

Much of the discordance of the evidence relating to the efficacy of saline substances depends upon the circumstance of their having been used in different proportions, and in general in quantities much too large.

I made a number of experiments in May and June, 1807, on the effects of different saline substances on barley and on grass growing in the same garden, the soil of which was a light sand, of
which 100 parts were composed of 60 parts of siliceous sand, and 24 parts finely divided matter,
[304] consisting of 7 parts carbonate of lime, 12 parts alumina and silica, less than one part saline matter, principally common salt, with a trace of gypsum and sulphate of magnesia: the remaining 16 parts were vegetable matter.

The solutions of the saline substances were used twice a week, in the quantity of two ounces, on spots of grass and corn, sufficiently remote from each other to prevent any interference of results. The substances tried were *super-carbonate, sulphate, acetate, nitrate*, and *muriate of potassa*; *sulphate of soda, sulphate, nitrate, muriate*, and *carbonate of ammonia.* I found that in all cases when the quantity of the salt equalled 1-30 part of the weight of the water, the effects were injurious; but least so in the instances of the carbonate, sulphate, and muriate of ammonia. When the quantities of the salts were 1-300 part of the solution the effects were different. The plants watered with the solutions of the sulphates grew just in the same manner as similar plants watered with rain water. Those acted on by the solution of nitre, acetate, and super-carbonate of potassa, and muriate of ammonia grew rather better. Those treated with the solution of carbonate of ammonia grew most luxuriantly of all. This last result is what might be expected, for carbonate of ammonia consists of carbon, hydrogene, azote, and oxygene. There was, however, another result which I had not anticipated; the plants watered with solution of nitrate of ammonia did not grow better than those watered
[305] with rain water. The solution reddened litmus paper; and probably the free acid exerted a prejudicial effect, and interfered with the result.

Soot doubtless owes a part of its efficacy to the ammoniacal salts it contains. The liquor produced by the distillation of coal contains carbonate and aceate of ammonia, and is said to be a very good manure.

In 1808, I found the growth of wheat in a field at Roehampton assisted by a very weak solution of acetate of ammonia.

Soapers' waste has been recommended as a manure, and it has been supposed that its efficacy depended upon the different saline matters it contains; but their quantity is very minute indeed, and its principal ingredients are mild lime and quicklime. In the soapers' waste from the best manufactories, there is scarcely a trace of alkali. Lime moistened with sea water affords more of this substance, and is said to have been used in some cases with more benefit than common lime.

It is unnecessary to discuss to any greater extent the effects of saline substances on vegetation; except the ammoniacal compounds, or the compounds containing nitric, acetic, and carbonic acid; none of them can afford by their decompo-

sition any of the common principles of vegetation, carbon, hydrogene, and oxygene.

The alkaline sulphates and the earthy muriates are so seldom found in plants, or are found in such minute quantities, that it can never be an object to apply them to the soil. It was stated in the beginning of this Lecture, that the earthy and alkaline substances seem never to be formed in vegetation; and there is every reason likewise to believe, that they are found in their ashes.

The metalic bases of them cannot exist in contact with aqueous fluids; and these metallic bases, like other metals, have not as yet been resolved into any other forms of matter by artificial processes; they combine readily with other elements; but they remain undestructible, and can be traced undiminished in quantity, through their diversified combinations.

EROM THE CHRISTIAN JOURNAL.

Mary of the Mountain.

[We are indebted for the following brief Sketch and Epitaph to the pen of a Lady who had several times visited the interesting character whom it pourtrays. Our readers will doubtless sympathize with the feelings which its perusal has excited in our breasts,and will unite with us in sincere acknoweldgements to the writer for enabling us to record in the *Christian Journal* a just and beautiful tribute to the memory of *Mary of the Mountain.*"]

Mary Young was a native of Germany. She came to America sometime about the year 1764—5, and settled near Germantown, in the state of Pennsylvania, together with her mother and several sisters, all of whom were young women. They had suffered persecution in their native country, and therefore sought an assylum here. Finding that their peculiar and secluded habits drew upon them the gaze of curiosity, they left Germantown, and sought out a sequestered spot among the hills of Oley, in the county of Berks, Pennsylvania, where, with almost incredible labour, they cleared a few acres of land on the side of a mountain, and there erected a neat little cottage, in which they passed the remainder of their days. A small enclosure, near the cottage, now contains all that is left of their family of love, the last of whom was Mary, who survived her last relation near forty years, during which time she lived along, passing her leisure in deeds of charity and good-will to her neighbours, and in love and adoration of her Maker.—She visited the sick, and administered to their wants, but never tarried to eat or to converse with them on common topics of conversation. Her language, which was always in her native tongue, was elegant; her manners and countenance mild and benevolent,her opinions liberal and rational, and her worship ardent and pure. Her cottage was a temple hallowed to the Lord, from which ascended the incense of prayer and praise, pure and undefiled as could arise from the human heart.—Her little territory was the abode of peace and tranquillity, on the side of the mountain, a few acres of beautiful upland meadow surrounded it. For many years it was enveloped in an impervious forest, its site could be ascertained only by the smoke which curled above the tops of the trees. Not a cat or a dog, or any other domestic companion had she, except her cow, for whose bed she collected the dry leaves of autumn. Her food was composed of fruits and vegetables, and she quenched her thirst in the limpid mountain spring—an apt emblem of that living fountain of which her spirit drank and whose streams lead to everlasting joy and felicity.

Finding herself weak and languishing, she crept to the edge of the mountain, and there waited with unmurmuring patience, till she was perceived to crave the charity she had so often bestowed on others. She was seen and pitied. A kind friend attended on her, to smooth her pillow, and to witness her happy exit. She bore the most excruciating agony without a murmur; continually giving thanks to her redeemer for the grace which imparted fortitude to resist complaint.

From the weakness of an infant, she was endued with strength at last to raise herself on her knees, and offer up an ardent prayer after which she returned to her bed and, closing her own eyes, fell asleep in Christ Jesus, on Tuesday the sixteenth of November last, aged seventy-four.

She had desired to be laid in the little enclosure which contains the graves of her mother and her sisters, without parade, and in a plain manner; but the affection of her neighbours drew together a large congregation, who felt in her end how sweet it is to *die in the Lord.*

EPITAPH.

Here, underneath this mountain stone,
Lies Mary Young, who lived alone,
High on the lofty mountain's side,
Belov'd and honour'd till she died;
Lov'd and honour'd by the few
Who give to vitue, virtue's due.
Stranger! she that's buried here,
Was humble, pious and sincere;
The even tenor of her days
Was passed in grateful pray'r and praise.
Her heart was like the gentle dove,
That came from heaven with promised love;
Her heart, her hands, her cottage door,
Were opened to the rich and poor;
Her faith confirmed, her will resigned,
So sweetly calm, so pure her mind,
The God of Mercy, from his throne
Look'd down and claimed her for his own.

FROM BLACKWOOD'S EDINBURGH MAGAZINE.

LITERARY AND SCIENTIFIC INTELLIGENCE.

Comparative Strength of Europeans and Savages.—M. Peron, the naturalist, has had occasion to observe, that men in a savage state, are inferior in strength, to men civilized; and he has demonstrated in a very evident manner, the improvement of social order, does not as some have pretended, destroy our phyical powers. The following is the result of experiments which he has made on this subject with the Dynamometer of M. Reigner (described Phil. Mag. Vol. I,)

Comparative Experiments on the Strength of Europeans and Savages.

		Force. With Hands.	With Traces.
Savages	Of Diemen's Land	50.6	0 0
	New-Holland	51.8	14.8
	Timor	58.7	16.2
Europeans	French	69.2	22.1
	English	71 4	23-8

Conversion of Wood, &c. into Sugar.—Dr. Vogel, Member of the Royal Academy of Sciences, has submitted to a careful examination in the labratory of the academy of Munich, the surprising discovery of Bracconot of Nancy, of the effects of concentrated sulphuric acid on wood and linen. He has not only fully confirmed this discovery, so as to lay before the Academy an essay on the subject, and show the products resulting from the original experiments, but also extended his own experiments, with equal success, to ther similar vegetable substances—such as old paper, both printed and written upon, and cut straw. By diluting the sulphuric acid with a due addition of water,saw dust, cut linen, paper, &c. were converted into gum and saccharine matter. It must excite great interest in all reflecting minds, to see an indissoluble, tasteless substance like the filaments of wood, converted, by chemical re-action, into two new bodies, and chemistry thus exercise a power, which, but lately appeared to belong to nature alone, and in particular to vegetation. For this artificial formation of sugar and gum, now discovered, must not be confounded with the extraction of these two substances from bodies in which they already existed, a process which has been known from time immemorial. What has now been discovered *is a transformation, a metamorphosis,* of which the most ingenious chemist had previously no idea; and it affords a new proof of the boundless extent of the domain of practical chemistry. A paper upon Dr. Vogel's repetition and investigation of Mr. Bracconot's experiments, and those added by himself, is promised in one of the next numbers of the Journal of Arts and Manufactures, published by the Bavarian Polytechnic Society.

Dry Rot.—This destructive enemy of buildings, which generally commences its ravages in the cellars, may be prevented, or its progress checked, by whitewashing them yearly, mixing with the wash as much copperas as will give it a clear yellow hue.

New Rockets.—Captain Schumacher, brother of Professor Schumacher, astronomer royal at Copenhagen, has invented a new kind of rocket, which is said greatly to surpass the Congreve rockets, both in their force and in the accuracy with which they may be thrown. The king of Denmark has established a new corps of artillery (*Roketer corps*) commanded by captain Schumacher, whose business is to throw these rockets. They ascend to a very great height in the air, and when they have reached the highest point, a globe of fire makes its appearance, which is so vivid, that it may be seen at the distance of 70 miles. From an experiment made with them in the island of Hjelm, they were seen distinctly by his brother at Copenhagen, a distance of 17 1-2 German miles.

Ancient Copy of Homer.—There has recently been discovered in the Ambrosian Library at Milau, a manuscript copy of the Iliad of Homer, of the fourth century, with sixty pictures, equally ancient. The characters are square capitals, according to the usage of the best ages, without distinction of words, without accents or the aspirates; that is to say, without any sign of the modern Greek orthography. The pictures are upon vellum, and represent the principal circumstances mentioned in the Iliad. M. Angelo Maio, professor at the Ambrosian college, has caused the manuscript to be printed in one volume, with the engravings from the pictures, and the numerous *scholia* attached to the manuscript. These new scholia fill more than thirty-six pages in large folio; they are all of a very ancient period, and the greater part of them are by authors anterior to the Christian era, and to the school of Alexandria. The authors quoted, are one hundred and forty in number, whose writings have been lost, or are entirely unknown. The manuscript, however, does not contain the Iliad entire, but only the fragments which relate to the pictures.

Death of Ritchie the African Traveller.—We lament to state, that Ritchie, the English gentleman employed by the African Association, has fallen a sacrifice to the climate of Africa a few weeks after his departure from the coast. We trust the African Society will henceforth abandon all future attempts in this quarter, and employ those willing to embark in their desperate although highly meritorious undertakings in some other part of Africa, where the climate is less fatal, and the chance of success greater.

New kind of Bank Note which cannot be forged. Among the improvements of the day, not one appears to attract more notice than the Siderographic Art, which has been introduced into this country by Messrs. Perkins and Fairman.

The principal object to which this invention has been applied, is to secure paper currencies from forgery; and, we believe, the most sanguine expectations of the inventors have been realized, as in no one instance has a successful attempt been made to counterfeit their most simple notes.

A short account of the invention will illustrate the value which is attached to it, and the advantages that will result from its introduction into this country.

The chief merit of this invention consists in its power to multiply engravings of the most exquisite, as well as those of inferior kinds, and substituting steel in place of copperplates in certain cases.

This process of stereotyping the fine arts is simple, and easily understood, and is effected in the following manner: Steel blocks or plates are prepared in a peculiar way, of sufficient softness to receive the tool of the engraver, who is able to produce upon them even better and sharper work than upon copper. This block or plate is then hardened by a new process, without injury to the most delicate lines. A cylinder of steel, of proper diameter and width, is then prepared to receive the impression on its periphery in relief. This is effected by being

applied to a singularly constructed press, invented expressly for the purpose. The cylinder is then hardened, and fac-similes may be produced upon steel or copper-plates *ad infinitum*; and in this way, bank note plates may have the talents of the most eminent artists in England transferred to them. The great advantage of this invention, as applied to secure bank notes from forgery, is, that it produces *perfect identity* in all the notes, and admits of a *test*, whereby each note may be *identified*, as all the notes may be perfectly alike, except the denomination; and every individual who will take the trouble to furnish himself with an original impression from any one of the *test* dies, may, by comparison, whether the note is genuine or not

This invention appears capable of putting an entire stop to the forgery of *all* paper securities, of whatever description.

We understand with pleasure, that the proprietors of this patent have formed a connexion with Mr. Charles Heath, an eminent engraver of this metropolis, and intend to have an extensive and permanent establishment in London, for the purpose of executing work for public or private Banking Institutions, and also *all* engravings of which a great number of impressions are required, which will enable them to furnish the work of the best artists at the price paid for that of a very inferior kind.

Messrs. Perkins and Fairman, it was generally expected, would have had the contract with the Bank of England for furnishing their new notes. Their plan has received the approbation of the most eminent artists of this country, who have signed a testimonial of its excellence and its capability of answering the end proposed.

The report, however, from the Commissioners appointed by his majesty, precludes that hope for the present.

Iron Bridges.— A memorial of some interest has been presented to the French Chamber of Deputies, on the subject of wrought-iron bridges, by M. Poyet, architect to the Minister of the Interior, and to the Chamber, and a member of the Institute. "I propose," says he, "to substitute for stone bridges, (the enormous expense of which renders the construction of an adequate number impracticable,) bridges of wrought iron, which are as strong as stone bridges, and may be built at one fifth of the expense. If, instead of constructing these iron bridges on stone piles, wood were substituted for the stone, the expense would be diminished one half; and thus we might have ten wooden bridges for one of stone. The principal advantages of the bridges are: 1. Great strength; each arch bearing the weight of a million of killogrammes, (984 tons, 7 cwt.) without the necessity of constructing abutments for the support of the last arch. 2. The piles may be raised at the distance of thirty or forty metres (98 to 130 feet) from each other, which must of course diminish expense, and facilitate navigation. 3 The bridge may be constructed with great expedition, because the iron is wrought in the usual way, and only a slight scaffold is requisite for raising it. 4 It may be repaired without obstructing the foot-path or carriage-way. 5. It may be raised or lowered at pleasure, leaving only the piles standing, which must prove a vast advantage on frontier rivers in time of war. 6. A portion of the bridge may be raised between two piles, sufficient for the passage of ships."

THE PLOUGH BOY.

ALBANY: SATURDAY, JULY 8, 1820.

We have cheerfully admitted the essay of QUERCUS and hope to receive further communications from the same pen. QUERCUS is no mean antagonist—and AGRICOLA must exercise his reflection, and sharpen his wit, if he would meet his adversary upon equal ground.

FOR THE PLOUGH BOY.

Cutting of Rye.

FRIEND HENRY HOMESPUN, JR.

Some ingenious farmers cut their rye immediately after the milk is out, while the kernel is yet soft. By this means they obtain a palatable and wholesome bread, a quantity of good fodder, and at the same time lose nothing in the grain, especially if it be sold by weight.

Nearly all kinds of grain suffer an absorption if they stand on the stalk after being ripe or fit for gathering. Rye seems to be more liable to this kind of diminution than any other kind of grain, except wheat when mildewed. If wheat be nearly ripe, with a fair plump kernel, and the stalk becomes rusty or mildewed, nearly the whole of the berry will shrink away by returning into the stalk, unless it be cut soon after becoming rusty. Rye, by standing too long before it is cut, not only loses a part of its heaviness, but it generates a rank quality, which is neither agreeable nor wholesome.

Whatever may be the secret cause of this disagreeable flavour, we will leave that to the chemist and the botanist; for although the study of chemistry is pleasing and profitable, and ought to be more and more encouraged, we must not expect every farmer will be acquainted with that science; yet, when he knows of a bad mode in agriculture, and will pursue it in imitation of his forefathers, we have a right to comment for the good of the young and docile husbandman.

The Pennsylvanians, particularly those of the German descent, cut their rye green, in manner above described. Their rye bread is white, and has an agreeable taste, insomuch that when I was at a time questioned, "*Wat sort pred you tink you eten?*" I answered, good wheat bread; and in fact it was better than our common country wheat. Some object, and say, "We cannot raise Pennsylvania white rye in its original perfection on our northern cold hills;" but this ought to be disbelieved: for if we thoroughly summer fallow our land, especially the dry hills, and perform all the work in season; roll the seed in plaster or lime, or even strong wood ashes, and sow plaster, lime or strong ashes over the fields of rye, in the month of May, there is no danger of being excelled by the Pennsylvanians in the cultivation of white rye; if in addition to the above, we only cut it in season and cure it well.

E. S. Thomas, of Baltimore county, Maryland, has obtained a new species of rye, said to be very valuable.

OBSERVER.

Westerlo, July 4, 1820.

From the New-York Evening Post.—July 1.

Premium butter.—This morning at the time appointed, 7 o'clock in the Fly and 8 o'clock in the Washington Market, appeared the various competitors for two premiums offered by the Agricultural Society, viz. a silver cream pitcher each of the value of $12, for the "best butter exhibited in the best style." There were nearly thirty competitors at the former, at the latter nearly as many. Butter of very superior flavour, colour and firmness was exhibited by most of the competitors, but the premium was awarded to Mrs. Cornelius R. Remsen, of Newtown, (Long-Island,) at the former, and Mrs. Demarest, of the English Neighbourhood, (New Jersey) at the latter. We were present at the Fly Market after the exhibition had closed, and did not see all the butter that was brought there, but we cannot avoid mentioning the fine-flavoured butter from Morrisania, and more particularly the very admirable manner and style in which it was sent. The vehicle that held it consisted of a large close covered tub, having a tin basin within, also close covered, in which was the butter, separated into pound lumps, each lump ornamented with a deep imprint representing a beautiful basket of flowers, and wrapped in a seperate thin piece of white cloth; the basin itself inclosed on three sides with ice. We recommend this machine as a model for similar occasions. The general fault throughout the samples, was not being sufficiently worked, which will always deprive butter of that waxiness and yellow colour so essential to its excellence. This encouragement for the best butter will doubtless be the means of furnishing us with that article of an improved quality. What might we not afford to give if a similar contrivance could procure us good bread, the great necessary of life, and which is the subject of greater imposition than any thing in which we deal?

BUTTER EXHIBITION.

The Committee of the New York County Agricultural Society, appointed to award premiums for the best butter, exhibited in the neatest and best style, at the Fly and Washington Markets, award, as follows:

In the Fly Market.

To Cornelius R. Remsen, of Newtown, L. I. a silver Cream Pitcher.

To James Toan, of Morrissania, a butter box, with a set of prints, presented by a member of the Society.

In the Washington Market.

To Mrs. Demarest, of English Neighbourhood, N. J. a silver Cream Pitcher.

To Richard Poulson, of Hackensack, a butter box, with a set of prints, presented by a member of the Society.

The Committee found it difficult to discriminate where the exhibition was so generally excellent. Besides those who obtained the premiums, the committee remarked the superior style in which the butter of Mrs. Morris, Colonel Gibbs, Mrs. Hopkins, Mrs. Moore, John Hoogland, John J. Ditmas, Richard Stilwell, Martin Schenck, and Henry Barclay, was exhibited in the Fly Market. And of John M. Hall, John J. Hopper, Mrs. Vreelanv, John Smith and Henry De Mott, in the Washington Market.

The names and places of residence of all the exhibiters are published, for the purpose of assuring the public that they can rely on obtaining excellent butter from each one of them, while they maintain the reputation which they have without exception established this morning.

The exhibiters in the Fly Market were— Cornelius R. Remsen, Peter Luyster, Daniel Moore, Henry Barclay, and Mrs. Moore, of Newtown; Mrs. Stilwell, and R. Stilwell of Gravesend; J. Toan, P. M'Monnaghal, and Mrs. Morris, of Morisania; David Rhodes of Jamaica; John J. Ditmas, of Flatbush; Col. Gibbs, of Swanswick; R. W. Starr, of Blackwell's Island; Martin Schenck. of Brookiyn; John Hoogland, of Flushing; Mrs. Hopkins of Fordham; John Cenover, and David Nevins of Flatlands.

In the Washington market, John M. Hall,* of New-York, John J. Hopper, Richard Poulson, Albert, Peter & Jasper Westervelt, and Hendrick Brinkerhoff, of Hackensack, John Degroot, Henry De Mott, John Lydecker, Mrs. Demarest, and Mrs. Vreeland, of English Neighbourhood, Benj. Lindsey, of Essex; John Smith, of Secaucus, and Mrs. Slater, of New-Durham.

By order of the committee,

JOHN SWARTWOUT, *Chairman.*

*Mr. Hall's style of exhibition in this market was very superior, but the Committee consider-

ed butter from single dairies as alone entitled to the premiums.

We will only add that we went to the above market this morning and purchased of Mr. Hall some of his excellent butter, which, we learn, is always to be had in the same place and in the same style the season through; fresh every morning in lumps, and at the common price.

Eve. P.

Weekly Summary.

An uncommon degree of heat has already been experienced this season. In this place the thermometer has been above 96 in the shade. At Hartford and at Hudson it is stated to have been up to 100. On the 22d ult. it was at 92, in the shade, at Quebec. At the same time our summer crops are suffering severely by drought.

At Salina the celebration of the anniversary of independence, for the present year, was to be celebrated on the canal, and great preparations were making for the purpose. Invitations were given to the governor, lieut. governor, and several other gentlemen of this city, to attend on the occasion. The concourse assembled there was expected to be very numerous, and from almost every part of the western district. An address on the occasion was to be delivered by Samuel M. Hopkins, Esq.

The Ontario Messenger mentions a severe hail storm having done much damage, on the 17th ult. in the towns of Lima and Richmond, in that county; many fields of grain partially, and others entirely destroyed; much glass broken in windows; many of the hail stones 3 inches in circumference.

On the 27th ult. a cargo of wheat, of this season, was sold at Philadelphia, the produce of North-Carolina, sold at 94 cents per bushel.

***Large growths.*—A strawberry was lately taken** from the garden of Mr. F. Lockwood, of Stamford, Ct. which measured 3 1-2 inches in circumference. In New-York, gooseberries, raised in Michael Floy's garden, have been exhibited, averaging about 3 inches in circumference, the largest 3 and 3 eights, and 1 inch and 5 eights in length.

Richard Lounsberry, of Westchester county, has been sentenced to six month's imprisonment, and to pay a fine of $25, for assaulting and beating his wife.

On the 14th ult. a son of Mr. Thomas Sparks, of Franklin county, Geo. shot his mother through the head in attempting to shoot a bee-martin.

A vessel is to sail in a few days from Norfolk for our infant African colony at Sherbro. The ladies of Georgetown, D. C. have collected the materials and made them up nearly 400 suits of cotton clothes; and the ladies of Frederick county, Va. nearly as many more, to be forwarded for a supply for the emigrants and their children. It is to be hoped that great good may yet result from this small beginning for restoring the poor Africans to their native land.

The great national road from the city of Washington to Wheeling, on the Ohio, and from thence, by an act of congress of the last session, to some suitable point on the Mississippi, between the entrance of the Missouri and the Illinois, is to be laid out from Wheeling to the Mississippi, this season, by three commissioners, appointed by the president for the purpose. The commissioners are Abner Lacock, David Shriver, Jun. and William McRee. It is worthy of remark, says the National Intelligencer, that this road will most probably be laid so as to run through the capitals of three states, Ohio, Indiana, and Illinois. A right line from the mouth of the Missouri to Wheeling, passes through Vandalia, the spot designated for the capital of Illinois; and Columbus, the capital of Ohio, is nearly on the same line; and the capital of Indiana, which is not yet laid out, will no doubt be located on this great road.

On the 20th ult. a murderous duel was fought between Richard Stuart and Townshend S. Dade, of King George county, Va. The combatants fought on the Maryland shore, opposite their places of residence, at a short distance, with muskets, loaded with buck shot. Dade was killed on the spot, and Stuart was so severely wounded that he expired in a few hours afterwards. They were near neighbours, relations, and before the quarrel that proved so fatal they were friends.

At a camp-meeting of the methodist persuasion held near Wickford, R. I. in June last, near 15,000 people were assembled, and were preached to by about 25 ministers.

From Cincinnati, of June 15, we are informed that in digging a well in that county, about a mile from the White water, 14 feet below the surface, and in a bed of rounded limestone pebbles, a living frog was dug up, which in a short time afterwards hopped away as nimbly as if he had been but a year old. From the age of the trees on the surface of the land, and the depth in which the animal was immured, it had probably lain there, in the torpid state, for thousands of years. The above informant mentions a *Mr.* Whitaker, a few miles east of the Little *Miami*, who, in digging a well, a few years ago, found a live frog and a lizard, at the depth of about 30 feet below the surface. The duration of the torpid state of *Rip Van Winkle* is nothing compared with these.

METEOROLOGICAL JOURNAL, FOR THE MONTH OF JUNE, 1820,

KEPT AT THE CITY ACADEMY IN ALBANY.

	Thermom'r			*Barometer.*			*Winds.*		*Weather.*		
days.	7, a m.	2, p m.	9, p m.	7, a m.	2, p m.	9, p m.	morn'g	aftern.	morn'g	aftern.	*Observations.*
1	48	80	6[illegible]	29.90	29.88	29.70	N	N E	Clear	Clear	
2	54	85	63	29.75	29.69	29.62	S	S E	Hazy	Hazy	
3	57	88	70	29.62	29.61	29 61	S E	S	Clear	Clear	
4	66	91	72	29.60	29 56	29.50	S E	S E	do	do	
5	67	61	55	29 52	29.60	29.66	W	N	Cloudy	Cloudy	
6	53	70	57	29.80	29 85	29.85	NW	NW	Clear	Clear	with scattered clouds.
7	56	72	60	29.85	29.80	29.70	W	W	do	do	
8	57	74	61	29.67	29.61	29.61	W	NW	Hazy	Hazy	Slight rain, P M.
9	60	81	71	29 65	29 66	29.66	NW	N E	Cloudy	Cloudy	
10	66	64	59	29 70	29 72	29.81	NW	NW	do	do	Slight rain at night.
11	61	79	66	29.89	29.90	29.88	NW	S E	do	Clear	
12	58	73	67	29.88	29.86	29 66	S E	S E	Clear	Cloudy	
13	68	72	68	29.53	29.53	29.53	S	W	Cloudy	do	Rain, A. M.
14	68	76	70	29 53	29 55	29.55	S	S E	Clear	do	Very slight rain, 2 P. M.
15	66	84	79	29.57	29.57	29.60	S W	W	Variable		
16	65	80	68	29.67	29.71	29 76	NW	N	Clear	Cloudy	
17	64	81	72	29 86	29.90	29 86	N	S	do	Clear	with scattered clouds.
18	66	84	73	29.86	29.86	29.82	S	S E	do	do	
19	68	84	76	29 80	29.82	29 80	S	S	do	do	
20	68	86	79	29.80	29 81	29.81	S	S	do	do	
21	73	88	82	29 83	29.80	29.80	S	S E	do	do	Cloudy at night.
22	77	94	78	29.75	29 75	29 73	S	W	Hazy	Hazy	
23	71	92	76	29 81	29 80	29.75	W	NW	Clear	Clear	
24	69	78	79	29.77	29.77	29 72	S	S E	do	do	
25	68	76	63	29 66	29 69	29 69	W	W	Cloudy	Cloudy	
26	62	78	66	29.70	29 73	29 69	W	NW	do	do	
27	57	78	71	29 73	29 71	29.68	W	S E	Clear	do	
28	63	83	72	29 76	29 80	29.80	W	NW	do	Clear	
29	64	84	80	29.81	29.81	29.79	S	S	do	do	
30	76	98	85	29 79	29.79	29.79	S	W	do	do	

A British ministerial paper says that orders have been sent to St. Helena, directing a more enlarged freedom to be allowed to Bonaparte, and that the expected return of Sir H. Lowe is a corroboration of the fact.

Mr. Hunt, and the others who were convicted at the York assizes, have received the following sentences:—Hunt to two and a half year's imprisonment in the gaol at Ilchester, and then to find security for his good behaviour for 5 years; J. Johnson, J. Healey, and S. Bamford, to one year in Lincoln castle, and then to find the like security; Sir C. Wolsely, and parson Harrison, to one and a half year each, and to find the like security.

A passage-boat, of malleable iron, now successfully plies on the Forth and Clyde canal, in Scotland. Its length is 63 feet, beam 13, depth 5, draft in the rear 37 inches; but when laden with 200 passengers, with their baggage, &c. it draws nearly 4 feet on an even keel. Its weight is about 12 1-2 tons, being less than that of a wooden vessel of the same dimensions. The iron is of the kind called scrap.

A British statute provides that any one winning more than $90 by gaming, shall be fined three times that amount, to be given to the poor. Several persons at Liverpool have lately been convicted under this statute.

In Smithfield, London, a custom has immemorially existed by which women may be sold, like cattle, in the cattle market. Pursuant to this relict of barbarism we see in a late London paper, an account of a man in Smithfield having recently brought his wife to this market; she was led with a halter round her neck, set up at auction, and *knocked off*, as the phrase is, for five shillings!

Lately died, in England, Arthur Young, Esq. at the age of about 80, one of the most conspicuous agriculturists of his time in that kingdom.

Paris dates, of the 17th May, state that the queen of England was on her way to Brussels. Another account is, that she is in Paris, *incog.* A society of ladies was forming in Paris to provide funds for buying masses for the soul of the duke de Berri, and prayers for the safe delivery of his widow. An idea of the liberty of the press, in France, may be formed from the following circumstance. Mr. B. Constant, a distinguished orator of the party of the libereaux, (liberals) stated to the chamber of deputies, that having been scandalously libelled, in one of the Journals, he had prepared an answer which fully refuted the calumniator, when, to his utter astonishment, the reply had been suppressed, by the public censor of the press.

FOREIGN.

The coronation of George IV. which is to take place on the first of August, is to be conducted on the most economical scale, and is not to cost more than about $450,000. The price of a coronation dress for a peer and peeress is estimated at about $3,600.

The number of letters delivered daily by the post in Paris is, on an average, 32,000; of journals 1,8000.—In London the average of letters is 133,000, and of journals 26,000.

From Cadiz, of the 13th May, we learn that the message of the president recommending forbearance as to measures against the Floridas, &c. was received there with great satisfaction. Cadiz was in an unsettled state, parties running high. Since the adoption of the constitution the priests had become more opposed to the king. Some of them had quit the country and gone to France. On the 1st May a great bull feast was given at that place in honour of the adoption of the constitution. In the midst of the scene, the staging, erected for the accommodation of the multitude, gave way, and 150 people were killed. This was attributed to a design of the priests, and caused much commotion in the city.

From Germany we learn that the elector of Hesse lately put a commercial traveller in prison for 6 months, for daring to find fault with the state of the public roads.—This is the same potentate who lately ordered all his subjects, under severe penalties, to mourn 60 days for the death of his wife.

In the more northerly and mountainous part of Norway, a waterfall, of a considerable river, has lately been discovered and visited by two gentlemen of science from Paris, and by their account it is by far the greatest cataract known in the world. There are three separate descents of the water; two are inclined planes, each of great height, and the third a perpendicular fall of 800 feet, more than four times the height of that of Niagara. The natives call the fall *Rinken Fossen*, or foaming fall. When the immense bodies of snow of that region are dissolving in the spring, such a volume of water pours down this cataract as is calculated, as is said, to excite the utmost emotions of the sublime and terrific in the beholder.

From Havanna we are informed that all the American citizens confined in the Moro castle, who had been captured on board of patriot vessels, were set at liberty by the government. The number was 28.

PRICE CURRENT.

Corrected Weekly, from the New-York General Price Current and Public Sales Report.

	Per	From D.	From C.	To D.	To C.	Remarks
ASHES, Pot	Ton	102	50			Dull.
——— Pearl		110				"
BEEF, Mess	bbl	9	50	9	62	
——— Prime		8		8	12	
——— Cargo		5	50			
BUTTER, first quality	lb		11		14	
——— for exportation			8			
CANDLES, mould			13		19	
——— Dipped			17			
——— Sperm			40		42	
——— Wax			60			
CHEESE, American			5		8	
CHOCOLATE, New-York			18		23	
——— Boston, No. 1			18		23	
——— Albany			20		25	
DOMESTIC GOODS,						
——— White shirting	yard		14		18	
——— Brown do			12		13	
——— 3-4 checks			16		18	
——— 7-8 do			21		22	
——— 4-4 do			24		26	
——— Stripes			16		17	
——— Plaids			16		18	
——— Bed-ticks			28		36	
——— Chambrays			14		15	
FEATHERS	lb		56		68	
FISH, Dry Cod	cwt	2	50	2	87	
——— scale		2				
——— Pickled Cod	bbl	3	50	4		
——— scale		2				
——— Salmon		15				
——— Fall mackrel No. 1		7	25	8		
——— ——— No.		5	50	6		
——— ——— No. 3		5				
——— Southern shad No. 1		5	50	6		
——— Connecticut mess shad		7	25	7	75	
——— Herrings		2	50	3		
FLAX	lb		18			
FLAX-SEED, clean	cask	13		13	50	
——— rough		12		13		
FLOUR & GRAIN						
——— New-York superfine	bbl.	4	50	4	62	
——— Philadelphia		5		5	12	
——— Baltimore		5		5	12	
——— Richmond		5				
——— Middlings, fine		3	25			
——— Rye flour		2	56	2	62	
——— Indian meal		3				
——— ——— in hogsheads	300	15		15	50	
——— Wheat, North River	bus.		75		87	
——— ——— Southern, new			94			
——— Barley			53		56	
——— Oats			37			
GLASS, Amer. 7 by 9	box	8				
——— 8 10		9				
——— 10 12		10				
GLUE	lb		10		15	
GUN-POWDER, Amer.	25lb	4		6		
——— Cannon		6		6	50	
HAMS, Virginia	lb		10		12	
——— North River			9		10	
HEMP, Water rot	Ton					
——— Dew rot		150				
HOGSLARD	lb		10			
HONEY			15		16	
HOPS 1st and 2d sort			6		8	
IRON, American	Ton	85		90		
LUMBER, Boards, oak	Mft	18				
——— North River pine		16		17		
——— Yellow pine		18		20		
——— Albany pineb'ds	pie.		18			
——— Scantling, pine	Mft	14		15		
——— ——— oak		25				
——— Oak timber	sd.ft		20		25	
——— Shingles, cypress	1000	4				
——— ——— pine		3		3	50	
——— Staves, pipe		54				
——— ——— hhd		43				
——— ——— bbl		22				
——— ——— R O hhd		25				
——— Hhd heading		50				
——— ——— hoops		25		30		
OIL, Linseed	gal		96			
PLAISTER of PARIS	Ton	4	75			
PORK, Cargo	bbl	9		9	50	
Prime		10	75	11		
Mess		13	75	14		
SOAP White	lb		13		15	
Brown			9		11	
WAX, Bees, white			55		60	
yellow			31		32	

New-York, July 4, 1820.

POETRY.

FROM THE COMMERCIAL ADVERTISER.

SUMMER EVENING.

In imitation of the verse of Ode 2d, Book 1st, Horace.

How passing lovely is the scene of Summer,
When the Sun's last ray smiles upon the rose-bud,
Where the clear dew-drop, placid child of evening,
Trembles depending:—
When not a zephyr breathes among the foliage,
And all is silent, save the silver music
Warbl'd by songsters, whose rejoicing notes hail
Phœbus and Vesper.
Pleas'd would I wander, at an hour so tranquil,
And hold sweet converse with the friend my heart loves,
Press to my bosom beauties far surpassing
All the charms of Summer;
Beauties, that fade not with the day's departure,
Charms, that survive the gay delights of Flora,
Shedding their perfume o'er the scenes of Autumn,
Cheering the Winter.
Pleas'd would I wander; but the night is low'ring,
And thro' my casement whistles now the wild winds,
Dark clouds portentous chase away the moon-beam,
Hark, how it thunders!
Come then, young Fancy, Love's attendant offspring,
Fly on the lightning—bring with thee my Anna;
Let me, delighted, gaze upon her image,
Gaze, and admire her.
Cease, cease, my fond heart—away these illusions:
Oh Thou, whose glories claim my highest homage,
Help me to give Thee my supreme affection,
God, my Redeemer! H.

Summary.

The Portsmouth Oracle says the Sea Serpent has been frequently seen this season by Mr. Halley, who resides near the Island of Shoals.

The Boston Patriot says, 13 pounds of butter were made, in one week, from the milk of one cow, owned by Eliphalet Thorp, of Athol, Mass.

Mr. Benjamin Day, an ingenious artist, at Salem, Mass. has succeeded in polishing the graphic granite so highly as to reflect large print at the distance of 20 feet.

From Newburyport we are informed that a lad, by the name of Brookings, being lately in search of an eel pot, at the upper end of Greenleaf's wharf, brought up a small bag containing 5 bars of pure gold, of the value of about $300.—It appears that during our revolutionary, war an English vessel, from Oporto, was captured, and brought into that port to the part of the wharf in question; that she had silver and gold, in bullion, on board, and that this gold was probably thrown overboard to prevent its falling into the hands of the captors.

A farther account of the conduct of the mutinous part of the crew of the General Rondeau is given by the captain, D. M. Miles, as follows: The vessel was lying off Grenada, and steering from thence to Margaritta, the crew mutinied; the 2d lieutenant, in attempting to quell the mutiny, was killed, and at the same time the captain was wounded; the captain, and surviving officers, and 3 marines, were then put in an open boat, with a small allowance of bread and water, and after being at sea three nights and two days they arrived at Margaritta.

A bed of very excellent oil stone, said to be superior to the turkey stone, has lately been discovered in the neighbourhood of Easton, Pa. the bed is extensive, on each side of the Lehigh.

The public papers announce preparations in every quarter for the celebration of the approaching fourth of July, and in many places without any distinction of parties.

A new and accurate map has lately been published of the Hudson river, from Sandy Hook to Glen's Falls, on a scale of two miles to an inch, in which all the cities, towns, villages, landing places, country seats, and their respective distances, &c. are accurately delineated. The work is executed by A. T. Goodrich, of Hudson.

In one of the New-Orleans papers last received twenty-one steam-boats are advertised to start for different places.

From St. Petersburgh we learn that an extensive expedition is to be fitted out this summer, to explore the northern regions and coast of the Russian empire.

A LIST OF LETTERS

Remaining in the Post-Office, Albany, July 1st, 1820.

[Persons enquiring for the following letters are requested to mention that they are advertised.]

A.—Benoni C. Allen, L. & C. Alborth.

B.—Edward Bolles, Henry Bender, Christian Bradt, Wm. S. Buel, *Mr.* Bromley, Elisha Blanchard, Dr. George Brown, Ira Barker, capt. Lewis Bosworth, John Belote, Richard Bristol, Sylvester Barton, John Brockway, Ira Babbet, Hermanus Bouck, Peter Bulson, *Margret* Bradt, Maria Bostwick, *Maria* Branch, Phebe T. Brown, Rosanna Bales, Salley Baker, Jane Barber.

C.—Paul Cushman, Silas A. Conkey, John T Cooper, Dr. Childs, Augustus Cuyler, Solomon Crawford, capt. Wm. Carmickle, Frederick Chambers, John Chapman, Robert Copeland, Gustavus B. Chafee, Ely Crampton, Paul Clark, Abraham Carpenter, Stephen Carpenter, Benj. Campbell, Francis Campbell, Henry S. Crosby, Alexander Copeland, Stephen Colwell, Eliza Congar, Rhoda Cary, Martha Curtis, Anna Careton.

D.—John Dougald, Peter Donnelly, Ira Donolds, capt. Abraham Davids, H. Donnelly, Francis Dimmick, Peter Davison, *Maria* Driesback, Elanor Deyoule.

E.—Newel Evens, Thomas Evens, Samuel Eliot, Samuel A. Eliot, Wm. Estell, James Eakins, Catharine Elldridge, Anna Eliot.

F.—Stephen Fitch, John Faye, Broadstreet Farley, James C. Ferris, Hugh Fenry, David Fausdick, Daniel Forister, Gilbert *M.* Foster, Roe Fairbairn.

G.—Capt. Joseph Gillespie 4, Simon Glen, Daniel Gardner, John Goodwin 2, Wm. Greswold, Gansevoort & Williams, Gilbert Groesbeck, James Gordon, Benj. Graves, Jr. Phares Gould, Joseph Gollouger, James Gaddes, Gitty Guest.

H.—Thos. Hall 2, Slocum Howland, Dr. P. R. Hulbert, Robert Hunter, D. Hewett, Charles Hickling, Asa Hart, John Holmes, John Hall, George Hazzard, Silas Harvey 2, Moses Hunter, Nathaniel Higby, Nehemiah Harden, D. Hosford, Sarah Hellings, Catharine Hogal, *Miss* Henry, Margaret Henry.

I. & J.—Thaddeus Jay, Denison Jones, *Mr.* Joyce, George Joyce, Wm. Johnson, Elisha Jenkins, Mary Joyce.

K.—George Kilbourn, capt. J Knap.

L.—Thomas Lee, *Mary* Lemmon, Aaron Lyon, Anthony Lamb, Anthony W. Lidture, James W. Lagrange, Francis Lansing, Jacob F. Lansing, Jerry Luther, H. F. Ledwitt, Samuel Legg, A. D. Lewis, Stephen Lush, Rachel Lauley, Amy Lewis.

M.—Thomas Mounsy, J. Maynard, James McClasky, T. Merrick, Lewis Moore, Harvey G. *Morse*, David McCarty, Daniel *McCeigue*, Isaac Mills, George *McClar*, James & John Maher, Geo. McGunnegle 2, David *Malary*, David Maffet 2, Philip Miller, James *Maher*, G. John Mills, Rev. Dr. Miller, Mary Moore, or C. M. Moore, Theodosia Meadon, Mrs. Makeab.

N.—John A. Nichols.

O.—Peter Onderdonk.

P.—Edward Parker 2, G. Powers, Charles Parsons, Steverson Powel, John Parkinson, Joshua L. Penny, Rev. Alexander Proudfit, Potter & Davis, Joseph Plumb 2, Cornelia Platt, Clarissa H. Phipps.

Q.—Jane Quackenbuss,

R.—Edison Richison, Solomon Russell, Mr. Rice, George Rosavelt, Bernard Roddy, Daniel Rodgers, Philip Rily.

S.—Richard C. Skinner 2, Harry Smith 2, Alvah Swetland, Hesey Spencer, *Martin* B. Schuyler, James Strong, Dr. Samuel Shaw, Elihu Severance, Ralpheus Smith, John S. Smith, James Schooncrab, Smith & Davis, Isaac Sharp, Lawrence L. Schuyler 2, Sally Sherman 2, Sarah Scott, Mary Sharp, Rosa Scott, Betsy Sumrix.

T.—Gardener Tillotsone, Marshal Turner, Abraham Ten Eyck, Abraham Ten Eyck, Jr. Wm. Townsend, Jacob Taylor, Sally Turner.

V.—Peter Van Tassel, William Van Atla, Abraham Vanhova, John Van Rensselaer, Teunice Van Sice, Mr. Vanderpool, *shoemaker*, Rev. Peter Van Zandt.

W.—Josiah Williams, William Wallace, John M. Wells, George Winants, Freeman Wing, Simon Wimple, H. Wendell, Jr. Wm. H. Williams, James Welnor, Arunah Woodward, Seth Warren, Joseph Webb, James Winchester, Willard Warner, Maria Williams, Mrs. Whyte, *Mary* Wittum.

S. SOUTHWICK, *Post-Master.*

ALBANY: PRINTED FOR THE EDITOR,

BY JOHN O. COLE.

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TERMS.

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